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ABSTRACT

Social and health service utilization have been the subject of numerous studies, but most have examined service utilization from the perspective of the type of service delivered to older adults. To determine the factors that predict overall utilization of services, data that had been collected in 1975 for the General Accounting Offices' survey of "The Well-Being of Older Persons in Cleveland, Ohio" (1,609 non-institutionalized adults) were analyzed. Using path analysis, predisposing, enabling and need factors were examined to determine their relationship to the use of formal and informal health and social services. Results showed that predisposing variables (age, sex, race, education, and marital status) had a small direct effect on utilization and an indirect effect through their influence on subsequent stage variables. For the enabling variables (perceived income, income, and social support) only social support had an indirect and direct effect. Need factors were all directly related to service utilization. Perceived need was more important than all other predisposing, enabling and need factors. The findings emphasize the importance of perceived need and question the importance of predisposing and enabling factors in predicting service utilization. (Author/JAC)

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SOCIAL AND HEALTH SERVICE UTILIZATION

A PATH ANALYSIS

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ABSTRACT

Social and health service utilization has been the subject of numerous studies. Predisposing, enabling and need factors have been studied in an attempt to explain senior center and nutrition site participation, and physician utilization. These previous studies have examined service utilization from the perspective of the type of service delivered to the older population. The purpose of this study is to determine the factors that predict overall utilization of services. Data are obtained from a large (N=1609) sample of Cleveland non-institutionalized elderly. Using path analysis, predisposing, enabling and need factors were examined to determine their relationship to the use of formal and informal, health and social services. The results indicate that the need factors are all directly related to service utilization. Most interesting, perceived need is more important than all other predisposing, enabling and need factors. The findings emphasize the importance of perceived need and question the importance of predisposing and enabling factors in predicting service utilization.

Social and health service utilization has been the subject of numerous studies. For the most part, researchers tend to isolate a group or social category of the population using one service in a particular way and assume that behavior would be the same for a whole set of different services. Similarly, researchers have limited their application of service utilization models to predicting rates of utilization. In spite of the fact that we know a great deal about the use of one or another health or social service in a particular way we know little about the factors that predict overall utilization patterns. The purpose of the research is to determine the factors that predict the use of an array of health and social services.

Factors that predict the use of social and health services have been inventoried by Andersen and Anderson (1967), McKinlay (1972), Andersen and Newman (1973), and Ward (1977). Of these, Ward (1977) uses a comprehensive health service model developed by Andersen and Newman (1973) to develop an integrated framework for research on services for older people. In his analysis, Ward (1977) distinguishes between three categories of variables: (1) predisposing variables, (2) enabling variables, and (3) need variables. Predisposing variables are those that exist prior to the onset of a specific illness or condition and help to predict the use of services. The factors mentioned include demographic variables, social structure variables and beliefs. Enabling variables are conditions which make services available to individuals who might seek to use them. Included in this category are income, social support, and structural organizational factors related to service delivery systems. Need variables are those associated with the perception and evaluated need. The factors mentioned include subjective and objective indicators of health.

Subsequent research has examined the use of one or another service for older adults to determine what factors predict service utilization. Hanssen et al. (1978) and Kahona and Kiyak (1981), for example, attempt to explain the use of services by considering predisposing and enabling variables. Hanssen et al. (1981) determines that there are no differences between senior center participants and non participants in demographics, life style and distance from service. Kahona and Kiyak (1981) determine that sex and living arrangements are critical mediators of the demand and use of various services.

Others have studied changes in use patterns under different conditions and situations (Tessler and Mechanic, 1978; Dutton, 1978; Cleary et al. (1982); George, (1981). Tessler and Mechanic (1978) examine the association between social and psychological status and health perceptions and find that distress is a statistically significant correlate of perceived health status. Dutton (1978) confirms that financial access does not fully account for trends in the use of services. Cleary et al. (1982) point out that sex differences are largely related to differences in reported health and not differences in help-seeking. Haug (1981) suggests that the aged resemble their younger counterparts in under-utilizing physician services for serious conditions. George (1981) points out that previous application of a multivariate service model have been restricted to predicting volume of services for older adults instead of predicting type of provider used.

In contrast, none of the previous studies have predicted the direct and indirect relationships predisposing, enabling and need factors have on the use of an array of services. This research is designed to meet this objective.

METHOD

In order to determine the predictors of utilization of an array of services a multivariate service model developed by Andersen and Newman (1973) and expanded by Ward (1977) was used. Using this model, the use of services is viewed as a function of the three categories of variables: (1) predisposing variables, (2) enabling variables, and (3) need variables. The predisposing variables included in this study are age, education, marital status (single or married), race and sex. The enabling variables are social support and income. Social support is a composite measure that includes living arrangement and social contact measures. Income variables included are total income and perception of financial resources. The need variables are health, mental health, instrumental ADL, physical ADL, and perceived need. With the exception of perceived need, each need factor is a composite measure that includes evaluated and perceived condition. It should be noted that organizational phenomena such as the nature of the service delivery system and community complexity which may be as highly related to utilization behavior as personal characteristics are not included in this study.

The dependent variable in this research is utilization. The specific services included in the utilization measure are transportation, social recreational, employment, remedial training, mental health, psychotropic drug, personal care, nursing care, physical therapy, continuous supervision, checking, relocation and placement, homemaker-household, meal preparation, administrative, legal and protective, and information and referral. This series of services is consistent with the array of services available to the older person on an informal and formal basis throughout the United States.

The data analyzed in this study were originally collected in 1975 for the General Accounting Offices' (GAO) survey of "The Well-Being of Older Persons in Cleveland, Ohio." The GAO interviewed 1609 randomly selected people in Cleveland who were at least 65 years old and were not living in institutions. The questionnaire used was developed by a multidisciplinary team at Duke University in collaboration with the Administration on Aging.

The primary analysis technique used to predict the direct and indirect relationships of several independent variables on one dependent variable was path analysis. Path analysis is primarily a theoretical framework for analyzing data from multiple regression.

LIMITATIONS

The major limitation of this research is that structural and organizational factors related to service delivery systems and community complexity are not included in the analysis. The questionnaire used to gather the data contains questions about an older person's social, economic, mental, physical and ADL status. It also quantifies the use of services, the duration and/or the number of months during which the service was received. The questionnaire does not measure structural and organizational factors related to service delivery systems and community characteristics that could predict utilization. Consequently, the data necessary to incorporate these factors into the overall design of this research were not available.

Similarly, beliefs and attitudes of older persons are not part of the service utilization model used in this research. In part, this is due to the lack of appropriate measures in the questionnaire used to collect the data. More important, previous research demonstrates that beliefs and attitudes are only vaguely related to service utilization (McKinlay, 1972; Ward, 1977).

RESULTS

The results of the analysis are presented in Figure 1. As it shows, of the predisposing variables age, education, marital status, race and sex, age, race and sex have a small direct effect on utilization. All of the predisposing variables have an indirect effect through their influence on subsequent stage variables. It is noteworthy that education had no direct effect on utilization. This presents quite a contrast to the general accepted conclusion that as the general level of education rises so will the use of services.

Considering the enabling variables income, perceived income and social support only social support has an indirect and direct effect on utlization. Income has a sizeable indirect effect on utilization through perceived income. Perceived income has a sizeable indirect effect on utilization through its influence on health, mental health and perceived need.

Considering the need variables health, mental health, instrumental ADL, physical ADL and perceived need, health, mental health and physical ADL have large indirect and small direct effects on utilization. Instrumental ADL has only a moderate indirect effect through perceived need. Perceived need has a direct and sizeable effect on utilization.

Considering the total model, the eight variables that have a direct effect on utilization account for 43 percent of the variation in utilization. Perceived need is by far the most powerful predictor of utilization, followed by mental health, sex, physical ADL, health, social support, age and race respectively.

SOCIAL AND HEALTH SERVICE UTILIZATION: A PATH ANALYSIS

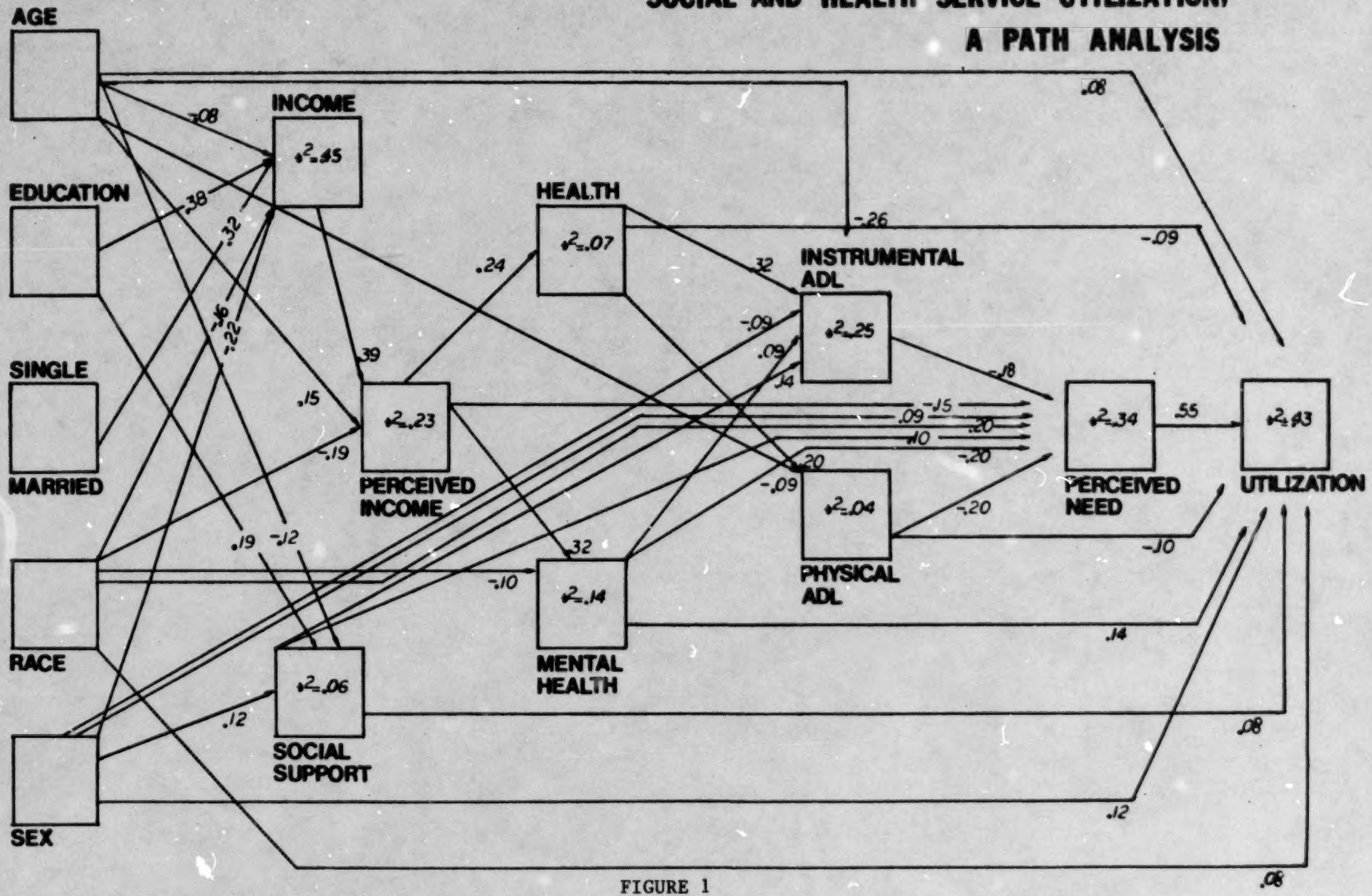

FIGURE 1

*STANDARDIZED BETA COEFFICIENTS SIGNIFICANT AT THE .01 LEVEL OR LESS

DISCUSSION AND SUMMARY

In most respects, this study confirms the results of previous research. Age, sex, race, social support, health, mental health and physical ADL have a direct effect on broad utilization patterns. Income is not directly related to utilization behavior. This research also supports previous findings that perceived need is critical in determining whether individuals will use services.

The results do not match those of previous research with regard to education and marital status. Earlier studies report that the lesser education of the aged may hinder the use of services (Riley and Foner, 1968; Ward, 1977). In this study utilization was not significantly related to education. Similarly, factors related to family have been mentioned as important determinants of utilization (McKinlay, 1972). In this study, utilization was not significantly related to marital status.

The major contribution of this study is in providing some idea as to how various factors combine to influence utilization behavior. For example, education is strongly related to income, but income does not directly affect utilization. It affects utilization only through perceived income and need. Another example is race. Racial differences has a small direct effect on broad utilization patterns. But it has a sizeable direct effect on perceived income, perceived need and mental health.

This research also demonstrates the importance of perceived need to the use of services for older people. This finding would support the consideration of beliefs and attitudes as predictors of service utilization. Beliefs and attitudes, up to this point, have been considered as only vaguely related to service utilization (McKinlay, 1972; Ward, 19[illegible].

This study also demonstrates that structural variables such as the organizational characteristics of service delivery systems (which are excluded from this study) probably do make a substantial contribution to the variation in the use of services by older persons. McKinlay (1972) and Ward (1977) emphasize the importance of incorporating organizational phenomena measures into the study of service utilization.

One last point, this research supports the use of Andersen and Newman's (1973) multivariate health service model to study social service utilization. Predisposing, enabling, and need categories of variables appear to predict the use of social as well as health services.

In closing, this research empirically demonstrates the importance of perceived need to the utilization of a broad set of services for older persons. Next to perceived need, sex, mental health, physical ADL and health come in a distant second. The theoretical model evaluated in this research fits the variation in utilization behavior reasonably well. Our next step is to see if we can further improve the model by including effects of organizational phenomena, beliefs, and attitudes variables on the use of services.

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